

KORNIYENKO, P., inzh.

Mechanization of finishing work. Zhil. stroi. no.5:22-23 '63.  
(MIRA 16:7)

1. Glavnyy metodist razdela "Stroitel'stvo" na Vystavke  
dostizheniy narodnogo khozyaystva SSSR.  
(Finishes and finishing—Equipment and supplies)

*Cand*  
KORNIYENKO, P. P.: Master Tech Sci (diss) -- "Investigation of the process of  
pulling out the roots of woody plants from soil which has been cut over". Voronezh,  
1958. 22 pp (Min Agric USSR, Voronezh Forestry Engineering Inst), 150 copies  
(KL, No 2, 1959, 121)

KORNIYENKO, P.P., inzh.

Investigating the process of ripping roots from soil. Trakt.  
i sel'khozmasb. no.1:13-15 Ja '59. (MIRA 12:1)  
(Forestry engineering)

KORNIYENKO, P.P.

VK-1,7 machine for removing tree roots. Trakt. i sel'khoz mash.  
31 no.7:33 J1 '61. (MIRA 14:6)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut lesovodstva  
i mekhanizatsii lesnogo khozyaystva.  
(Clearing of land)

KORNIYENKO, P.P.

PLR-135 forestry plow. Trakt.i sel'khoz mash. 31 no.8:39-40 Ag '61.  
(MIRA 14:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut lesovodstva  
i mekhanizatsii lesnogo khozyaystva.  
(Flora)

KORNIYENKO, Petr Prokop'yevich; FEDOROV, P.F., red.; GOSPODARSKAYA,  
T.N., red. izd-va; GRECHISHCHEVA, V.I., tekhn. red.

[Mechanization of soil cultivation in forestry] Mekhanizatsiia  
obrabotki pochvy v lesnom khoziaistve. Moskva, Goslesbum-  
izdat, 1962. 47 p. (MIRA 15:8)  
(Forests and forestry—Equipment and supplies)  
(Forest soils)

DMITRIYEV, A.Y.; KOZNIYENKO, P.F.; LUK'YANOV, S.V.; LEBEDEV, V.S.

The GGR-2 portable station for the control and regulation of  
hydraulic fracturing processes. Trudy VNIIPodzemgaza no.12:  
131-134 '64. (MIRA 18:9)

1. laboratoriya gazifikatsii kamennykh ugley Vsesoyuznogo  
nauchno-issledovatel'skogo instituta podzemnoy gazifikatsii  
ugley.

KORNIYENKO P.S.

Adopting advanced experience. Vest.sviazi 16 no.7:16-17 J1 '56.  
(MLRA 9:9)

1.Predsedatel' Stavropol'skogo kraykoma profsoyuza rabotnikov  
svyazi.

(Stavropol Territory--Telecommunication)



KORNIYENKO, P.S.

Trade-union organisations are fighting for technological progress at Stavropol's industrial plants. Vest.svyazi 20  
no.2:24-26 F '60. (MIRA 13:5)

1.Predsedatel' Stavropol'skogo krayevogo komiteta profsoyuza  
rabotnikov svyazi, rabochikh avtotransporta i shosseynykh  
dorog.  
(Stavropol Territory--Telecommunication)

*KORNIYENKO, R.*  
KORNIYENKO, R., sportsman 1-go razryada, pobeditel' aviamodel'nykh sorevno-  
vaniy aviatsionnykh vuzov.

Building airplane models with rubber motors. Kryl. rod. 7 no.10:  
20-21 0 '56. (MIRA 11:2)

(Airplanes--Models)

GORBACHEV, Pavel; PILIFYUK, V., red.; KORNIYENKO, T., red.

[Nurek today] Nurek segodnia. Dushanbo, Izd-vo "Irfon,"  
1964. 34 p. (MIRA 18:3)

1. Sekretar' Nurekskogo gorodskogo komiteta kommunisticheskoy  
partii (for Gorbachev).

BURKSER, Ye.S.; KORNIYENKO, T.G.

Fast determination of rubidium in silicate minerals. Ukr. khim.  
zhur. 24 no.3:375-378 '58. (MIRA 11:9)

1. Institut geologicheskikh nauk AN USSR.  
(Rubidium) (Rocks--Analysis)

BURKSER, Ye.S. [Burkser, IE.S.]; KORNIYENKO, T.G. [Kornilenko, T.H.]

Some remarks concerning the genesis of germanium in coal sediments.  
Geol.zhur. 22 no.2:103-105 '62. (MIRA 15:4)  
(Germanium)

KORNIYENKO, T.G.

Forms in which germanium is associated with brown coals.

Azerb. khim. zhur. no.3:125-131 '62.

(MIRA 16:12)

BURKSER, Ye.S. [deceased]; KORNIYENKO, T.G.

Natura of germanium bond with brown coal matter. Geokhimiia no.11:  
1364-1366 N '65. (MIRA 19:1)

1. Institut geologicheskikh nauk AN UkrSSR. Submitted August 10,  
1964.

KORNIYENKO, T.G.

Use of paper electrophoresis for the fractionation of humic acids. Ukr. khim. zhur. 30 no.12:1349-1352 '84  
(MIRA 1984)

1. Institut geologicheskikh nauk AN UkrSSR.



NESMEYANOVA, S.I.; CHIKRYZOVA, L.G.; BOYKO, V.M.; KORNIYENKO, T.I.;  
VISHNEVSKAYA, L.F.; VAZHOVA, T.V.

Studying the duration of immunity to smallpox vaccine in Uzbekistan.  
Med. zhur. Uzb. no.8:65-68 Ag '61. (MIRA 15:1)

1. Iz Tashkentskogo instituta vaktsin i syvorotok (direktor -  
A.B.Inogamov).  
(UZBEKISTAN--SMALLPOX--PREVENTION) (IMMUNITY)

KORNILYENKO, T. M.

PHASE I BOOK EXPLOITATION

SOV/6181

Ural'skoye soveshchaniye po spektroskopii. 3d, Sverdlovsk, 1960.  
Materialy (Materials of the Third Ural Conference on Spectroscopy) Sverdlovsk, Metallurgizdat, 1962. 197 p. Errata slip inserted. 3000 copies printed.

Sponsoring Agencies: Institut fiziki metallov Akademii nauk SSSR.  
Komissiya po spektroskopii; and Ural'skiy dom tekhniki VSNTO.

Eds. (Title page): G. P. Skorniyakov, A. B. Shayevich, and S. G. Bogomolov; Ed.: Gennadiy Pavlovich Skorniyakov; Ed. of Publishing House: M. L. Kryzhova; Tech. Ed.: N. T. Mal'kova.

PURPOSE: The book, a collection of articles, is intended for staff members of spectral analysis laboratories in industry and scientific research organizations, as well as for students of related disciplines and for technologists utilizing analytical results.

Card 1/15

Materials of the Third Ural Conference (Cont.)

110  
SOV/6181

**COVERAGE:** The collection presents theoretical and practical problems of the application of atomic and molecular spectral analysis in controlling the chemical composition of various materials in ferrous and nonferrous metallurgy, geology, chemical industry, and medicine. The authors express their thanks to G. V. Chentsova for help in preparing the materials for the press. References follow the individual articles.

**TABLE OF CONTENTS:**

Foreword

3

**PART I**

Sherstkov, Yu. A., and L. F. Maksimovskiy. Investigation of the dependence of the total intensity of spectral lines on the concentration of elements in an arc-discharge plasma 4

Card 2/15

Materials of the Third Ural Conference (Cont.)

SOV/6181

- Fi. el'shteyn, A. I., B. I. Sukhorukov, T. M. Korniyenko,  
and Yu. I. Mushkin. Utilization of acid and alkali  
properties for spectrophotometric analysis of amino-  
hydroxy compounds by means of ultraviolet spectra 168
- Finkel'shteyn, A. I. Spectral determination of composi-  
tion and structure of melamine pyrolysis products 171
- Korobkov, V. S. Spectroscopic manifestations of inter-  
molecular hydrogen bonds 174
- Kolobova, V. N., and V. V. Zharkov. Quantitative determina-  
tion of residual monomers in polystyrene by ultraviolet  
absorption spectra 178
- Ledentsov, Yu. K., and E. N. Borodina. Absorption spectra  
of blood serum under the effect of ionizing radiation  
and low temperature 180

Card 13/ 15

13

CH

THE SOLUBILITY OF PHENOL-FORMALDEHYDE RESINS. V. V. Stepanova and T. P. Korotenko. *Nauch. Zapiski Dnepropetrovsk. Gosudarst. Univ.* 13, No. 2, 103-74 (1940); *Khim. Referat. Zhur.* 4, No. 9, 130 (1941). The object of the exper. was to select a solvent for bakelite for use in the lacquer industry and to study the structure of bakelite. Resin rods obtained in test tubes were cut into small pieces and treated first with various solvents, then with binary mixts. and, finally, with aq. solns. Bakelite dissolved partly in all solvents studied, most in the binary mixts.

W. R. Henn

ASTM 55.4 METALLOGICAL LITERATURE CLASSIFICATION

1ST AND 2ND ORDERS										PROCESSES AND PROPERTIES INDEX									
<p><i>cx</i></p> <p>Larvicidal action of Ishimhai oil-cracking by-products.  K. A. Korchagina, T. P. Kornienko, and A. I. Lukashchuk.  <i>Med. Parazit. Parasitic Diseases</i> (U.S.S.R.) 12, No. 3, 55-61 (1943).—The effectiveness of various by-product fractions from the cracking of Ishimhai oil is shown by lab. and field expts. The recommended mixt. for malaria control in the Ufa region is a suspension of 1 kg. Paris green and 3-4 kg. oil-cracking polymer in 250 l. of water. S. Gottlieb</p>																			
ASME-11A METALLURGICAL LITERATURE CLASSIFICATION										13									
13000 13000 13000 13000 13000 13000 13000 13000 13000 13000										13000 13000 13000 13000 13000 13000 13000 13000 13000 13000									

KORNIYENKO, T. P.

Berezovskaya, F. I. and Korniyenko, T. P. -"The kinetics in the oxidation of unsaturated compounds in connection with geometric isomerism," Nauch. zapiski (Dnepropetr. gos. un-t). Vol. XXXIII, 1948, p. 77-83

SO: U-5240, 17, Dec. 53, (Letopis 'Zhurnal 'nykh Statey, No. 25, 1949).

CA

51

Kinetics of simultaneous polymerization of vinyl acetate and methyl methacrylate. M. V. Polyakov and T. P. Kornenko. *Doklady Akad. Nauk S.S.S.R.* 63, 407-9 (1948).—As in the polymerization of the sep. monomers (*C.A.* 43, 438c), curves of the temp. rise (assumed to be a measure of the rate of the polymerization reaction) as a function of time consist of 3 portions, an induction period, a branch of autocatalytic increase of the temp. to a peak, and a branch of falling temp. In expts. with 1%  $H_2O$ , both the induction period and the sp. viscosity of the product in 2% soln. in  $CH_2Cl_2$  decreased with increasing initial temp. of the mixt. (65, 70, 75, and 80°). The height of the temp. peak increases with increasing initial temp. In terms of the compn. of the monomer mixt., the induction period has a max. at 70% vinyl acetate X 30% methylmethacrylate; at that compn., the induction period is many times as long as with the pure monomers, attaining 8.5 hrs. at 65°. It is taken to indicate that in the mixt., each component polymerizes independently of the other, and that each acts as a retarding diluent on the polymerization of the other. This conclusion is borne out by the observation that the viscosity of the product first increases with increasing proportion of vinyl acetate, passes through a max., and then decreases. Lengthening of the induction period means decrease of the no. of the initial polymerization centers, hence decrease of the no. of sep. chains, hence greater chain length and higher viscosity.

N. Thon



KORNIYENKO, T. P.

USSR/Chemistry - Plastics  
Reaction kinetics

Jun 51

"Investigation of the Kinetics and Mechanism of Polymerization of Vinylacetate," M. V. Polyakov, A. Ya. Pavlushina, T. P. Korniyenko, V. V. Shalya, Inst of Phys Chem, Acad Sci Ukrainian SSR, Kiev

"Zhur Fiz Khim" Vol XXV, No 6, pp 647-653

By study of kinetics of polymerization of vinylacetate under conditions of low heat loss, found polymerization to have autocatalytic, explosive character. Investigated dependence of polymerization kinetics and viscosity of polymer on initial temp and amt of catalyst. Discusses polymerization mechanism.

206T8

KORNIYENKO, T. P.

USSR/Chemistry - Plastics

Dec 51

"Kinetics of Copolymerization of Vinylacetate and Methylmethacrylate," M. V. Polyakov, T. P. Korniyenko, Inst of Phys Chem imeni L. V. Pisarzhevskiy, Acad Sci Ukrainian SSR, Kiev

"Zhur Fiz Khim" Vol XXV, No 12, pp 1407-1411

Using new method for study of kinetics and mechanism of copolymerization, found that copolymerization of vinylacetate (I) and methylmethacrylate (II) is autocatalytic. By study of a number of relationships encountered in process of copolymerization of I and II, reached certain conclusions, one of which is that chains of uniform compn are formed from identical particles. Each component is polymerized separately, copolymer being mixt of chains composed of identical particles. Method can be used to clarify copolymerization mechanism.

PA 197T20

*Kornilenko, T. P.*

USSR/Physical Chemistry - Kinetics. Combustion. Explosives. Topochemistry.  
Catalysis, B-9

Abst Journal: Referat Zhur - Khimiya, No 1, 1957, 451

Author: Kornilenko, T. P., and Polyakov, M. V.

Institution: None

Title: On the Initiation of the Oxidation of Methane by Hard Surfaces

Original

Periodical: Ukr. khim. zh., 1956, 22, No 2, 186-189

Abstract: The oxidation of  $\text{CH}_4$  by air was studied with the aid of a 3-junction thermocouple by the method of partial calorimetric measurements (L. M. Bogoyavlenskaya and A. A. Koval'skiy, Zh. fiz. khimii, 1946, Vol 20, 1325) in a cylindrical reactor, the walls of which were coated with  $\text{Mg}_3(\text{PO}_4)_2$ ; the reaction temperature was 500-600° and the pressure 400-500 mm Hg with a  $\text{CH}_4$  content in the mixture of 15%. The addition of 0.2% nitric oxides increases heat production at the center of the vessel and hence, the intensity of the homogeneous oxidation of the  $\text{CH}_4$ . The catalytic effect of the addition of one percent HCl vapor

Card 1/2

USSR/Physical Chemistry - Kinetics. Combustion. Explosives. Topochemistry.

APPROVED FOR RELEASE: 06/14/2000

CIA-RDP86-00513R00082472001

Abst Journal: Referat Zhur - Khimiya, No 1, 1957, 451

Abstract: was less marked. During prolonged operation of the  $\text{Mg}_3(\text{PO}_4)_2$ -coated reactor in the presence of HCl vapor, a steady state was reached, characterized by small heat production. The yield of  $\text{CH}_2\text{O}$  falls off from 0.5 to 0.1%, and heating of the surface of the vessel is not observed. The authors explain the drop in the reaction rate by the formation of  $\text{MgCl}_2$ , which reduces chain initiation at the surface. Data are also presented on the surface heating effects observed during the oxidation of  $\text{CH}_4$  in a reactor coated with  $\text{Ag}_2\text{O}$ .

Card 2/2

KORNIYENKO, T.P.; POLYAKOV, M.V.

Effect of the reaction vessel walls on the oxidation of methane.  
Ukr. khim. zhur. 24 no. 2:182-189 '58. (MIRA 11:6)

1. Institut fizicheskoy khimii im. L.V.Pisarshevskogo AN USSR.  
(Methane)  
(Oxidation)

KORNIYENKO, T.P.; POLYAKOV, M.V.

Study of the methanol conversion to formaldehyde in contact with  
silver. Ukr. khim. zhur. 24 no.3:312-319 '58. (MIRA 11:9)

1. Institut fizicheskoy khimii im. L.V. Pisarzhevskogo AN USSR.  
(Methanol) (Formaldehyde)

83667

S/073/60/026/004/006/008  
B016/B054

11.6200

AUTHORS: Korniienko, T. P. and Polyakov, M. V.

TITLE: The Influence of Magnesium Chloride Coats of Vessel Walls  
on the Oxidation Process of Methane //

PERIODICAL: Ukrainskiy khimicheskii zhurnal, 1960, Vol. 26, No. 4,  
pp. 440-445

TEXT: In previous papers (Refs. 1,2) the authors proved the heterogeneous-homogeneous nature of oxidative chain reactions by the example of methane, and the butane-propane petroleum fraction. They observed in both cases a strong reduction of heating in the vessel center under the influence of the coating of the inner walls with chlorides of alkali- or alkaline-earth metals. This effect is not explained. Therefore, the authors studied in the present paper the influence of a gradually forming coat of magnesium chloride on the volume stage of the oxidation process of methane and on the yield in reaction products. Fig. 1 shows kinetic curves of heating in the center of the quartz vessel as dependent on the degree of coating of its inner walls with magnesium chloride. Table 1 gives data on

Card 1/4

83667

The Influence of Magnesium Chloride Coats of Vessel Walls on the Oxidation Process of Methane S/O73/60/026/004/006/008  
BO16/BO54

the heating of the inner surface. These data show that even in the presence of thin  $MgCl_2$  coats the heating in the vessel center is strongly reduced. A coat covering  $3/4$  of the vessel surface is sufficient to attain a steady heating which is very small as compared to a vessel with uncoated walls. Besides, Table 1 shows that with a full coating of the vessel with  $MgCl_2$  its surface is practically not heated at all. As to the time required for maximum heating in the vessel center, Fig. 1 shows that it increases in proportion to the coating of walls with  $MgCl_2$ . Figs. 2-6 and Table 2

illustrate the data of analysis of the products of methane oxidation with various degrees of coating of the vessel. Fig. 2 shows, as an example, the kinetics of the accumulation of CO and  $CO_2$ , as well as of the methane- and oxygen consumption, when half the surface is coated (similar results were obtained with other degrees of coating). A comparison of the consumption curves of  $CH_4$  and  $O_2$  (Fig. 2) shows that the transformation of  $CH_4$  strongly lags behind the consumption of  $O_2$  at the start of the reaction. This also applies to a vessel with uncoated walls (Figs. 5 and 6). It is possible that the oxygen adsorption on the vessel walls forms one of

Card 2/4

83667

The Influence of Magnesium Chloride Coats of Vessel Walls on the Oxidation Process of Methane S/073/60/026/004/006/008  
B016/B054

the first steps of the methane oxidation process. Fig. 2 and Table 2 also show that the reaction rate of methane oxidation is mainly determined by the CO yield (A. B. Nalbandyan and co-workers, Ref. 6). On the other hand, the final yield in CO (Fig. 3), as well as in CO<sub>2</sub> (Fig. 4) and H<sub>2</sub> (Table 2),

is little modified by the coating degree of the vessel. The authors conclude from their results that the reduction of heating in the vessel center (Fig. 1) cannot be explained by a change in the reaction mechanism. The cause of this phenomenon must be the strongly inhibiting action of the MgCl<sub>2</sub> coat on CH<sub>4</sub> oxidation, and above all the volume stage of this

reaction. As the solid surface also influences oxidation in the further stages, the authors conclude that the CH<sub>4</sub> oxidation represents a

heterogeneous-homogeneous catalytic process in which the walls of the reaction vessel play the part of the catalyst. There are 6 figures, 3 tables, and 7 Soviet references.

ASSOCIATION: Institut fizicheskoy khimii AN USSR (Institute of Physical Chemistry of the AS UkrSSR)

Card 3/4



The Influence of Magnesium Chloride Coats of  
Vessel Walls on the Oxidation Process of Methane

83667

S/073/60/026/004/006/008

B016/B054

SUBMITTED: March 5, 1959

Card 4/4

KORNIYENKO, T.P.; KAPUSTINA, F.G.; POLYAKOV, M.V.

Method of separate calorimetry for studying the conversion of ethyl alcohol to acetaldehyde. Part 1: Effect of the nature of solid surface. Ukr.khim.zhur. 28 no.2:192-198 '62. (MIRA 15:3)

1. Institut fizicheskoy khimii im. L.V.Pisarzhevskogo AN USSR.  
(Ethyl alcohol) (Acetaldehyde)

S/073/62/028/009/003/011

A057/A126

AUTHORS: Polishchuk, Yu. N., Korniyenko, T. P., Polyakov, M. V.

TITLE: On the effect of the walls of the reaction vessel on the process of initiated styrene polymerization

PERIODICAL: Ukrainskiy khimicheskiy zhurnal, v. 28, no. 9, 1962, 1024 - 1030

TEXT: At the Institut fizicheskoy khimii im. L. V. Pisarzhevskogo AN USSR (Institute of Physical Chemistry imeni L. V. Pisarzhevskiy AS UkrSSR) a detailed study was carried out on the benzoyl peroxide-initiated styrene polymerization kinetics in dependence of the size of the reaction vessel and the surface of its walls. The polymerization was investigated by measuring the temperature rise of the reactants during reaction under nearly adiabatic conditions. Glass ampullas of 8 cm length and different diameters from 12 to 30 mm were used as reaction vessels. Experiments carried out at 85, 90, and 98°C in molybdenum glass vessels showed a considerable increase in the polymerization rate with an increase of the diameter of the vessel from 12 to 24 mm. Thus, a vessel with 24 mm diameter at temperatures below 98°C showed the shortest induction period and maximum

Card 1/2

APPROVED FOR RELEASE: 06/14/2000

CIA-RDP86-00513R000824720018

S/073/62/028/009/003/011

A057/A126

On the effect of the walls of the...

temperature of reaction. The yield and molecular weight of the product does not depend on the diameter of the molybdenum glass vessel, but on the initial temperature. A change from molybdenum to quartz glass vessels resulted in a drop of the reaction rate. A treatment of the inner surface of the molybdenum glass vessel with hydrofluoric acid showed an increase of the polymerization rate. A small decrease was observed after an  $\text{MoO}_3$  and  $\text{Cr}_2\text{O}_3$  coating of the surface, and a considerable drop of the polymerization rate with coatings of metallic silver, or water glass. Treatment of the glass surface effected also the molecular weight of the product. Thus the molecular weight increases from 41,500 to 62,000 and 74,000 by lowering the reaction rate with quartz glass vessels or a silver coating of the surface. Apparently an increase of the chain length occurs influenced by the decrease of the number of active centers on the solid surface. In view of the observed effects of surface treatment and of the diameter of the reaction vessel on the investigated process, a homogeneous-heterogeneous mechanism is suggested by the authors. There are 8 figures and 2 tables.

ASSOCIATION: Institut fizicheskoy khimii im. L. V. Pisarzhevskogo AN USSR  
(Institute of Physical Chemistry imeni L. V. Pisarzhevskiy AS UkrSSR)

SUBMITTED: July 16, 1961

Card 2/2

KORNIYENKO, T. P.; KAPUSTINA, F. G.; POLYAKOV, M. V.

Study of the conversion of ethyl alcohol to acetaldehyde by the method of separate calorimetric measurement. Part.2: Role of oxygen in the process of alcohol conversion. Ukr. khim. zhur. 28 no.3:343-346 '62. (MIRA 15:10)

1. Institut fizicheskoy khimii im. L. V. Pisarshevskogo AN UkrSSR.

(Ethyl alcohol) (Acetaldehyde)

POLISHCHUK, Yu.N.; KORNIYENKO, T.P.; POLYAKOV, M.V.

Role of the reaction vessel walls in the process of initiated  
polymerization of styrene. Ukr.khim.zhur. 28 no.9:1024-1030  
'62. (MIRA 15:12)

1. Institut fizicheskoy khimii im. L.V. Pisarzhevskogo  
AN UkrSSR.

(Styrene)

(Polymerization)

(Chemical reactors)

ACCESSION NR: AT4020706

8/0000/63/000/000/0156/0159

AUTHOR: Polishchuk, Yu.N.; Korniyenko, T.P.; Polyakov, M.V.

TITLE: Radiation-induced polymerization of styrene in the presence of solid additives

SOURCE: Karbotsepy\*ye vy\*sokomolekulyarny\*ye soyedineniya (Carbon-chain macro-molecular compounds); sbornik statey. Moscow, Izd-vo AN SSSR, 1963, 156-159

TOPIC TAGS: radiation polymerization, styrene, silicagel, zinc oxide, aluminum silicate, quartz, titanium dioxide, vanadium pentoxide, metallic magnesium, activated charcoal, polymerization catalyst

ABSTRACT: The polymerization of styrene under the influence of  $\gamma$ -rays in the presence of solid additives such as silicagel, zinc oxide, aluminum silicate, activated charcoal, quartz, titanium dioxide, vanadium pentoxide and metallic magnesium was investigated at room temperature. On the basis of polymer yields, the important role of the solid additives in the initiation of the polymer chains was demonstrated. This makes it possible to assume a hetero-homogeneous mechanism for the radiation polymerization of styrene under the conditions investigated. An analogy was observed between the action of some solid additives on ionic radiation polymerization and on the radiation polymerization of styrene proceeding at room temperature. The polymer yields and molecular weights are given for additive

Card 1/2

APPROVED FOR RELEASE: 06/14/2000

CIA-RDP86-00513R000824720018

ACCESSION NR: AT4020706

concentrations of 10-50% (by weight of styrene), at an irradiation dose of  $3.5 \times 10^{20}$  e.v./g. The polystyrene yield is also plotted against the polymerization time (up to 80 hours). Orig. art. has: 3 tables and 1 figure.

ASSOCIATION: Institut fizicheskoy khimii im. L.V. Pisarzhevskogo AN UkrSSR (Institute of Physical Chemistry, AN UkrSSR)

SUBMITTED: 30May63

DATE ACQ: 30Mar64

ENCL: 000

SUB CODE: OC

NO REF SOV: 006

OTHER: 004

Card 2/2

S/073/63/029/003/006/009  
A057/A126

AUTHORS: Polishchuk, Yu. N., Korniyenko, T. P., Vysotskiy, Z. Z.

TITLE: Polymerization of styrene, vinylacetate, and methyl methacrylate in the presence of alumo-silica gel coatings

PERIODICAL: Ukrainskiy khimicheskiy zhurnal, v. 29, no. 3, 1963, 325 -329

TEXT: Polymerization kinetics of the radical polymerization in liquid phase were studied with styrene, vinylacetate, and methyl methacrylate in reaction vessels with alumo-silica gel coatings. Also investigated was the effect of xerogels, formed in vapors of the investigated monomer, and the structure-adsorptive and catalytic properties were compared with control samples. The present work was carried out in the Institut fizicheskoy khimii im. L. V. Pisarzhevskogo (Institute of Physical Chemistry imeni L. V. Pisarzhevskiy) in continuation of earlier investigations (Ukr.khim.zhur., v. 28, 1962, 1024) with non-porous coatings. The hydrogel was prepared in the usual manner forming alumosilic acid. Thus the alumo-silica gel surface showed properties of a strong acid. The process with monomer vapors resulted after drying in a yellow-

Card 1/3

Polymerization of styrene,...

S/073/63/029/003/006/009  
A057/A126

brown product in case of styrene, in a black product with vinylacetate, and in a colourless product with methyl methacrylate. Adsorption isotherms of methanol vapors on the alumo-silica gel samples treated with styrene or vinylacetate show two characteristics: both curves lie below the control curve and have reproducible hysteresis loops. This is explained by the change of the xerogel surface effected by grafting of polymer chains to it. Thus, a polystyrene skeleton is formed in the pores of the gel. The adsorption isotherm of the methyl methacrylate alumo-silica gel lies above the control sample curve. This difference to the other two samples is in agreement with the colour difference observed, showing thus a connection between the two effects. The prepared alumo-silica gels were applied, powdered ( $100 - 250 \mu$ ) and mixed with water glass, to the inner surface of the reaction vessel. The polymerization was carried out with 1% benzoyl peroxide admixture in nitrogen atmosphere. The technique used was described in an earlier paper (Zh. fiz. khim., v. 25, 1951, 647). A strong effect of the drying method of the alumo-silica gel on styrene and vinyl acetate polymerization kinetics was observed. This effect was especially pronounced for alumo-silica gel coatings dried over  $\text{CaCl}_2$  in the monomer vapor. The styrene polymerization is initiated at  $85^\circ\text{C}$ , that of vinyl acetate above  $65^\circ\text{C}$ .

Card 2/3



Polymerization of styrene...

S/073/63/029/003/006/009  
A057/A126

No effect could be observed in methyl methacrylate polymerization, except a shortening of the induction period. The obtained results prove the assumption of the heterogeneous-homogeneous mechanism of the process studied. However, the expected specific polymerization of the monomer effected by the alumo-silica gel was not observed. This effect is apparently restrained by the change of the chemical nature of the surface because of the intensive polymerization occurring on the alumo-silica gel surface. There are 4 figures.

ASSOCIATION: Institut fizicheskoy khimii im. L. V. Pisarzhevskogo (Institute of Physical Chemistry im. L. V. Pisarzhevskiy)

SUBMITTED: January 4, 1962  
Card 3/3

POLISHCHUK, Yu.N.; KORNIYENKO, T.P.; VYSOTSKIY, Z.Z.

Polymerization of styrene, vinyl acetate, and methyl methacrylate in the presence of aluminosilica gel coatings. Ukr.khim.zhur. 29 no.3:325-329 '63. (MIRA 16:4)

1. Institut fizicheskoy khimii imeni L.V.Pisarzhevskogo.  
(Polymerization) (Organic compounds) (Aluminosilicates)

ACCESSION NR: AP4037445

S/0021/64/000/005/0607/0609

AUTHOR: Polishchuk, Yu. N.; Korniyenko, T. P.; Zelenchukova, T. G.; Polyakov, M. V.

TITLE: Effect of a solid surface [of additives in suspension] on the radiation-induced polymerization of vinyl compounds

SOURCE: AN UkrRSR. Dopovidi, no. 5, 1964, 607-609

TOPIC TAGS: vinyl, vinyl polymer, vinyl polymerization, radiation-induced polymerization, ionizing radiation, radiation effect, styrene polymerization, gamma-radiation, cobalt-60 source, gamma-ray-induced polymerization, free-radical polymerization, silica gel,  $MgO_2ZnO$

ABSTRACT: The effect of suspended solid additives on gamma-radiation-induced polymerization of styrene was investigated at room temperature. A  $Co^{60}$  source with 1600 g-equivalent activity was used. The data showed that in the case of free-radical polymerization of styrene, the very same additives were active that, according to the literature, increase the rate of radiation-induced poly-

Card 1/2

ACCESSION NR: AP4037445

merization. It was shown that such additives as ZnO, MgO, silica gel and some others considerably enhance the rate of styrene polymerization. A hetero-homogeneous mechanism was proposed to explain the observed results. Orig. art. has 3 tables.

ASSOCIATION: Instytut fizykochemii (Institute of Physical Chemistry)

SUBMITTED: 19Jul63

DATE ACQ: 03Jun64

ENCL: 00

SUB CODE: CH

NO REF SOV: 002

OTHER: 002

Card 2/2

KISHINEVSKIY, M.Kh.; KORNIYENKO, T.S.

Diffusion stream from a moving drop. Zhur. prikl. khim. 36  
no.8:1869-1871 Ag '63. (MIRA 16:11)

1. Kafedra khimicheskoy tekhnologii Kishinevskogo gosudarstvennogo  
universiteta.

KORNIYENKO, T.S.; KISHINEVSKIY, M.Kh.

Kinetics of benzoic acid distribution between benzene and water during extraction from drops. Zhur. prikl. khim. 36 no.10:2224-2228 0 '63. (MIRA 17:1)

1. Kishinevskiy gosudarstvennyy universitet.

KISHINEVSKIY, M.Kh.; KORNIYENKO, T.S.

Kinetics of extraction from drops. Zhur. prikl. khim. 36 no.12:  
2681-2687 D'63. (MIRA 17:2)

1. Kishinevskiy gosudarstvennyy universitet.

KISHINEVSKIY, M.Kh.; KORNIYENKO, T.S.

Kinetics of mass exchange in the systems liquid - liquid. Zhur.  
prikl. khim. 36 no.5:1008-1016 My '63. (MIRA 16:8)

1. Laboratoriya khimicheskoy tekhnologii Kishinevskogo  
gosudarstvennogo universiteta.  
(Extraction (Chemistry)) (Mass transfer)



KORNIYENKO, T.S.; KISHINEVSKIY, M.Kh.

Kinetics of the distribution of benzoic acid between a nonpolar solvent and water. Zhur.prikl.khim. 36 no.6:1238-1243 Je '63.  
(MIRA 16:8)

1. Laboratoriya khimicheskoy tekhnologii Kishinevskogo gosudarstvennogo universiteta.  
(Benzoic acid) (Solvents)

KISHINEVSKIY, M.Kh.; KORNIYENKO, T.S.

Dynamic method of studying mass transfer during the movement of drops. Zhur. prikl. khim. 37 no. 4:844-851 Ap '64. (MIRA 17:5)

1. Laboratoriya khimicheskoy tekhnologii Kishinevskogo gosudarstvennogo universiteta.

KISHINEVSKIY, M.Kh.; KORNIYENKO, T.S.

Transfer mechanism in the system n-heptane - toluene -  
diethylene glycol. Zhur. prikl. khim. 37 no.9:2071-2074  
S '64. (MIRA 17:10)

1. Kishenevskiy gosudarstvennyy universitet.

KISHINEVSKIY, M.Kh.; KORNIYENKO, T.S.

Kinetics of extraction complicated by a chemical reaction. Zhur.  
prikl. khim. 37 no.6:1285-1291 Je '64.

(MIRA 18:3)

1. Kishenevskiy gosudarstvennyy universitet.

KORNIYENKO, T.S.; GANDEL'MAN, Kh.K.

Effect of surface-active substances on the kinetics of  
extraction from drops. Uch.zap.Kish.un. 68:34-37 '63  
[cover '64]. (MIRA 18:12)

KORNIYENKO, T. V., Cand Med Sci -- (diss) "Audiometry in various disorders of the auditory function." L'vov, 1960. 17 pp; (L'vov-skiy State Medical Inst); 200 copies; price not given; (KL, 19-60, 138)

KORNIYENKO, V., kand.teichn.nauk

NM-1 inclinometer. Mor.flet 19 no.1:17-19 Ja '59.  
(Inclinometer)

(MIRA 12:3)

DVOSKIN, Benjamin Yakovlevich; SIDOROV, Ivan Firsovich; KORNIIYENKO, V.,  
red.; KOROLEVA, A., mladshiy red.

[The Virgin Territory; a study in economic geography] TSelin-  
nyi krai; ekonomiko-geograficheskiy ocherk. Moskva, Izd-vo  
"Mysl'," 1964. 149 p. (MIRA 17:9)



KORNIYENKO, V., laureat Leninskoy premii

Elements made of aluminum alloys. Na stroi. Ros. no. 2:21-23  
F '61. (MIRA 14:6)

(Aluminum, Structural)

KORNIYENKO, V.

Stimuli and quality. Sov. torg. 36 no.11:5-7 N '62. (MIRA 16:1)  
(Russia--Manufactures) (Quality control)

KORNIYENKO, V., laureat Leninskoy premii

Assembly of three-dimensional sheet steel elements in large sections.  
Na stroit-Ros. 3 no.1:14-16 Ja '62. (MIRA 16:5)

1. Glavnyy tekhnolog proyektnogo instituta Promstal'konstruktsiya.  
(Steel, Structural)

PARFENOV, Dmitriy Andreyevich; KORNIIYENKO, V., red.; KOROLEVA, A.,  
mladshiy red.; KORNILOVA, V., tekhn. red.

[Intellectual and physical work in the U.S.S.R.; the  
economic prerequisites for overcoming the essential dif-  
ferences] Umstvennyi i fizicheskii trud v SSSR; ekono-  
micheskie predposylki preodoleniya sushchestvennykh raz-  
lichii. Moskva, Izd-vo "Mysl'," 1964. 143 p.

(MIRA 17:3)

EFROS, M. M.; GUSAROV, Ye. I.; YUNISOVA, S. A.; Prinimal uchastiye:  
KORNIYENKO, V. A.

Investigating the operation of plant furnaces converted to gas  
using a low-pressure jet. Trudy VNIIT no. 11:218-244 '62.  
(MIRA 17:5)

KORNIYENKO, V.G., inzh.; MALININ, M.B., inzh.

Redesigning of the packing gland of the shaft of the PE-430-180  
pump. Energetik 11 no.10:20-21 0 '63. (MIRA 16:11)

ZVYAGINTSEV, A.F.; IVANOV, Yu.N.; KAZAKOV, V.E.; STETSENKO, A.M.;  
SOLOMOVICH, M.Ya.; KORZH, V.I.; DASHKEVICH, A.A.; Prinizali  
uchastiye: LIPTSEN, S.Kh.; RYZHIKOV, A.P.; STAL'NOKRITSKIY,  
V.N.; LEVENETS, L.Ye.; MOGILA, V.A.; KOVAL', A.A.; VLASOV, V.F.;  
ROSHCHIN, A.G.; RAYKO, V.P.; KORNIYENKO, V.G.; PANTYUSHKIN, N.V.

Investigating the possibility of manufacturing all-rolled  
electric locomotive wheels with existing equipment. Kuz.-shtam.  
proizv. 5 no.11:11-14 N '63.

(MIRA 17:1)

KORNIYENKO, V.G.; ZHOLUDEV, M.D., kand.tekhn.nauk

Introducing electrolytic zinc plating of carbon-steel strips. Biul.  
tekh.-kon.inform.Gos.nauch.-issl.inst.nauch.i tekh.inform. 17  
no.7:9-11 J1 '64. (MIRA 17:10)



Electric Motors

Problems of protecting electric motors from working in two phases. Prom. energ.,  
9, No.7, 1952.

Monthly List of Russian Accessions, Library of Congress, October 1952, UNCLASSIFIED

KORNIYENKO, V.I., inzh.

Diagram for determining the sizes of cables, wires, and fuses  
used in connecting an asynchronous motor to a power supply network.  
Energetik 10 no.3:27-29 Mr '62. (MIRA 15:2)

(Electric motors, Induction)  
(Electric wire)

KORNIYENKO V.M. (USSR)

"Changes in Individual Proteins during the Process of Ageing"

Report presented at the 5th Int'l Biochemistry Congress,  
Moscow, 10-16 Aug. 1961

ca KORNİYENKO, V M.

Microrelief and productivity of soils in the zone of podzolization. V. M. Korniyenko. *Pochvovedeniye* (Pedology) 1950, 43:6. Tests with a number of crops show depressing effects of microrelief on yield owing to compaction, excessive moisture condition, lower org. matter content, and available P. J. H. Joffe

KORNIYENKO, V.M.

Polarographic investigation of proteins. Ush.sap.KHGU 68:267-274  
'56 (MIRA 11:11)

1. Kafedra biokhimii Nauchno-issledovatel'skogo instituta biologii  
i biologicheskogo fakul'teta Khar'kovskogo ordena trudovogo  
krasnogo znameni gosudarstvennogo universiteta imeni A.M.Gor'kogo.  
(PROTEINS--ANALYSIS) (POLAROGRAPHY)

KORNIYENKO, V.M.

Albumin content of serum and its properties in animals of various  
age. Uch. zap KHGU 108:29-40 '60. (MIRA 14:3)

1. Kafedra biokhimii Khar'kovskogo gosudarstvennogo universiteta.  
(BLOOD PROTEINS) (AGE)

KORNIYENKO, V.M.; LOBANOV, A.V.; DENISOV, V.M.

Enzymatic splitting of serum albumin in animals of various age.  
Uch. zap KHGU 108:41-44 '60. (MIRA 14:3)

1. Kafedra biokhimii Khar'kovskogo gosudarstvennogo universiteta.  
(BLOOD PROTEINS) (AGE) (PEPSIN)

KORNIYENKO, V.M.; MARTYENKO, A.A.

Some properties of myosin in young and old white rats. Uch. zap  
KHGU 108:45-57 '60. (MIRA 14:3)

1. Kafedra biokhimi Khar'kovskogo gosudarstvennogo universiteta.  
(MYOSIN) (AGE)



KORNIYENKO, Vasilii Petrovich; BORISOVSKAYA, M.A., red.; GUZHANOVA,  
T.N., mladshiy red.; PONOMAREVA, A.A., tekhn. red.

[Communal division of labor during the period of the transition  
to communism] Obshchestvennoe razdelenie truda v period perekhoda  
k kommunizmu. Moskva, Ekonomizdat, 1963. 260 p. (MIRA 16:3)  
(Division of labor)

KORNIL'YEV, V.P.; KOROLEVSKIY, A.P.

Apparatus with a photoelectronic automatic device for examining conditioned response activity in small animals. Bul. eksp. biol. i med. 56 no. 7:113-116 J1'63 (MIRA 17:3)

1. Iz Instituta biologicheskoy fiziki ( dir. - chlen-korrespondent AN SSSR G.M.Frank) AN SSSR, Moskva. Predstavlena deyствitel'nyy chlenom AMN SSSR V.V. Parinym.



KORNIPENKO, V. I.

10  
The chemical faculty of A. M. Gorkii State University of  
Kharkov, its pre-history, formation, and growth. B. S.  
Khotinskiy, A. T. Davydov, V. P. Kornienko, I. Ya.  
Levitskiy. *Uchenye Zapiski Kharkov Gosudarst. Univ.*  
Im. A. M. Gorkogo 58, No. 13, 7-13 (1955).—A history  
commemorating 150 yrs. of the university. Research

Institute of Chemistry Kharkov University  
Kharkov, 1955, 12 p.  
Library from the day of its foundation

11  
The chemical faculty of A. M. Gorkii State University of  
Kharkov, its pre-history, formation, and growth. B. S.  
Khotinskiy, A. T. Davydov, V. P. Kornienko, I. Ya.  
Levitskiy. *Uchenye Zapiski Kharkov Gosudarst. Univ.*  
Im. A. M. Gorkogo 58, No. 13, 7-13 (1955).—A history  
commemorating 150 yrs. of the university. Research

chemistry in Kharkov University  
Library from the day of its foundation

12  
The chemical faculty of A. M. Gorkii State University of  
Kharkov, its pre-history, formation, and growth. B. S.  
Khotinskiy, A. T. Davydov, V. P. Kornienko, I. Ya.  
Levitskiy. *Uchenye Zapiski Kharkov Gosudarst. Univ.*  
Im. A. M. Gorkogo 58, No. 13, 7-13 (1955).—A history  
commemorating 150 yrs. of the university. Research

chemistry in Kharkov University  
Library from the day of its foundation

KORNIYENKO, V. P.

Distr: 4R4j

Kinetics and chemical mechanism of thermal decomposition of formates and oxalates. V. P. Korniyenko (State Univ. Kharkov). *Sbornik Nauch. Trudov*, 1986, No. 8, 92-9. The thermal decomposition of  $Mn(II)$ ,  $Fe(II)$ ,  $Zn$ ,  $Co(II)$ ,  $Ni(II)$ , and  $Cu(II)$  formates was studied by use of the rate of decomposition as a parameter characterizing reaction velocity. The abs. temps. of equal decomposition time are inversely proportional to the total ionization potentials of the cations. The decomposition products contain metal oxides and metals. Oxalates behave similarly. The possible mechanisms are discussed. V. S. Mibajlov

*[Handwritten signature]*

4  
2-may  
1

*Korniyenko, V. P.*

Category: USSR / Physical Chemistry - Kinetics. Combustion.  
Explosives. Topochemistry. Catalysis.

B-9

Abs Jour: Referat Zhur Khimiya, No 9, 1957, 30047

Author : I. Korniyenko V. P., Petrenko V. V.; II. Korniyenko V. P., Kagan  
M. B., Spendiaryov N. N.; III, Korniyenko V. P., Selikhova M. N.,  
Remmer N. S.

Inst : Khar'kov University

Title : I. Thermal Decomposition of Nickel Oxalate. II. Kinetics of Thermal  
Decomposition of Manganese Oxalate. III. Thermal Decomposition of  
Cobalt Oxalate.

Orig Pub: Uch. zap. Khar'kovsk. un-ta, 1956, 71, 77-87; 89-94; 95-102.

Abstract: I. A volumetric study of the kinetics of decomposition of dihydrate  
of nickel oxalate (I) at 343-369°. It is shown that the equation of  
Yerofeyev (1) is applicable to this process. The exponent  $n$  appear-  
ing in this equation is equal to 1 at low temperatures, increasing  
with temperature and reaching 1.66 at 369°. With rise in temperature  
the velocity maximum is shifted to 50% decomposition. Energy of acti-

Card : 1/3

-20-

Category: USSR / Physical Chemistry - Kinetics. Combustion.  
Explosives. Topochemistry. Catalysis.

B-9

Abs Jour: Referat Zhur-Khimiya, No 9, 1957, 30047

vation (E), calculated from temperature dependence of velocity constant, is 42.3 kcal/mole; from temperature dependence of the duration of the reaction, is derived the value  $E = 45.3$  kcal/mole. Decomposition of I occurs in stages: 1)  $\text{NiC}_2\text{O}_4 = \text{NiO} + \text{CO} + \text{CO}_2$ ; 2)  $\text{NiO} + \text{CO} \rightarrow \text{Ni} + \text{CO}_2$ . By approximate thermodynamic calculations it is shown that the decomposition of I with formation of metal oxide and acid anhydride is more advantageous, from energy standpoint, than the decomposition to metal and radical. By means of the rule of Lugnina the heat of formation value of I has been estimated and was found to be of 206 kcal.

II. A study was made, between 369 and 420°, of the thermal decomposition of the dihydrate of manganese oxalate (II). Decomposition of II takes place according to equation (1), in which the value of exponent  $n$  varies from 1.07 to 1.42, depending on temperature and percentage of decomposition. Energy of activation,  $E = 41$  kcal/mole,

Card : 2/3

-21-

KORNIYENKO, V. P.

AUTHOR: Korniyenko, V.P.

73-2-4/22

TITLE: The effect of the cation nature on the thermal decomposition of oxalates. (O vliyanii prirody kationa na termicheskiye razlozheniye oksalatov).

PERIODICAL: "Ukrainskiy Khimicheskiy Zhurnal" (Ukrainian Journal of Chemistry), Vol.23, No.2, March-April, 1957, pp.159-167 (USSR).

ABSTRACT: The author verified V.P.Kornienko's conclusions (Ref.1: V.P.Kornienko:Ukrain.Khim.Zhurnal, 1952, vol.18,579 and Ref.2: V.P.Kornienko:Trudy In-ta Khimii KhGU,1953,Vol.10, 129) on the thermal decomposition of oxalates of group IV (manganese to zinc). He determined the kinetics of decomposition of oxalates of divalent cations of the above elements as a function of temperature. From Table 1 it is evident that the decomposition of oxalates of manganese, iron and zinc differs considerably from that of cobalt, nickel and copper. These reactions were shown to proceed in all cases via the formation of metal oxides and the decomposition of the radicals. It was confirmed that the velocity of the decomposition of the salts is determined by the magnitude of the polarising activity of the cation. The magnitude of the investigated energy of activation does

Card 1/3



The effect of the cation nature on the thermal 73-2-4/22  
decomposition of oxalates. (Cont.)

ASSOCIATION: Khar'kov State University, Chair of Inorganic  
Chemistry (Khar'kovskiy Gosudarstvennyy Universitet,  
Kafedra Neorganicheskoy Khimii).

SUBMITTED: May 7, 1956.

AVAILABLE: Library of Congress

Card 3/3

KORNIYENKO, V.P., datsent; SMLIKHOVA, M.N.; KRASNOPEEROVA, Yu.S., studentka

Thermal decomposition of copper and zinc formates. Uch. zap. KHGU  
82:59-68 '57. (MIRA 12:9)

(Formic acid)

KORNIYENKO, V.P., dotsent

Some regularities of the kinetics of monotypic reactions.

(MIRA 12:10)

Uch. zap. KHGU 95:63-74 '57.

(Chemical reaction, Rate of)

KORNIYENKO, V.P.; DUBROVSKAYA, M.N.

Thermal decomposition of solid solutions of salts. Part 1: Isothermal decomposition of binary solid solutions of iron, cobalt, and nickel oxalates. Ukr.khim.zhur. 29 no.3:262-271 '63. (MIRA 16:4)

1. Khar'kovskiy gosudarstvennyy universitet. (Solutions, Solid)  
(Oxalates)

KORNIYENKO, V.P.; DUBROVSKAYA, M.N.; SHAPOVALOVA, G.M.

Thermal decomposition of solid solutions of salts. Part 2: Thermography of binary solid solutions of iron and group metal oxalates. Ukr.khim. zhur. 29 no.3:271-278 '63. (MIRA 16:4)

1. Khar'kovskiy gosudarstvennyy universitet.  
(Transition metal oxalates) (Solutions, Solid) (Thermal analysis)

L 40097-66 EWT(m)/T/EWP(t)/ETI IJP(c) JD

ACC NR: AP6019664 (N) SOURCE CODE: UR/0073/46/032/006/0642/0645 112

AUTHOR: Kolesnikov, V. N.; Dem'yanov, E. A.; Sleptsov, G. V.; Korniyenko, V. P. 6

ORG: Kharkov State University im. A. M. Gor'kiy (Khar'kovskiy gosudarstvennyy universitet)

TITLE: Study of the thermochemical etching of germanium single crystals with gaseous iodine 11 16

SOURCE: Ukrainskiy khimicheskiy zhurnal, v. 32, no. 6, 1966, 642-645

TOPIC TAGS: germanium single crystal, iodine, etched crystal, THERMOCHEMISTRY

ABSTRACT: The article considers the effect of the temperature and pressure of gaseous iodine on the reaction between the latter and single-crystal germanium, and also the mechanism of the thermochemical etching of surface (III) of germanium. It is shown that germanium tetraiodide is formed at 200-550°, and germanium diiodide at 300-800°. The region of maximum yield of diiodide and tetraiodide is ~400°. At T > 600°, the yield of diiodide increases with rising temperature. A mechanism including the successive stages of chemisorption of iodine, formation of the iodide, and desorption is proposed. A metallographic study of the surface after etching showed that true etch figures (flat and depressed triangles) are formed on surface (III) over a definite range of etching rates at 500-600° and iodine pressures of 2-4 mm in the iodine zone. Orig. art. has: 2 figures.

SUB CODE: 07/ SUBM DATE: 16Jul64/ ORIG REF: 003/ OTH REF: 008/ Card 1/1 UDC: 546.289:548.572

KORNIYENKO, V. S

Country : USSR

Category: Soil Science. Physical and Chemical Properties of Soil.

Abs Jour: RZhBiol., No 18, 1958, No 82098

Author : Korniyenko, V.S.; Chumachenko, I.N.

Inst : -

Title : Simplified Method of Determination of Assimilable  
Phosphates in Carbonated Soils of Uzbekistan

Orig Pub: Sots. s.k. Uzbekistana, 1957, No 1, 73-77

Abstract: The method consists of the following. A 2% solution of ammonium carbonate is poured over a batch of air-dried soil, and 2 ml of a molybdic reagent ( $\text{MoO}$  solution in sulfuric acid) is added to 5 ml of the extract. Standard solutions (with 2.5; 5 and 10 ml of a standard solution with 0.005 mg of  $\text{P}_2\text{O}_5$  in 1 ml) are

Card : 1/3

Country : USSR

J

Category: Soil Science. Physical and Chemical Properties of Soil.

Abs Jour: RZhBiol., No 18, 1958, No 82098

prepared to which 2 ml of the molybdic reagent is also added. Then 0.5 ml of freshly prepared lead chloride is added to the extract and to the standard solutions; they are shaken, allowed to settle, and the  $P_2O_5$  content of the soil is judged according to the color intensity of the extract; a pale blue-green color of the extract is compatible with 30 mg/kg of  $P_2O_5$  in the soil, a blue color -- 30-50 mg/kg, and a dark blue -- more than 60 mg/kg. Results of the determinations of  $P_2O_5$  in typical sierozem and meadow irrigated soil with the use of a 1% carbonate extract and by the simplified method showed that the latter method permitted the analysis to be carried out in a much shorter time and gave almost the same results

Card : 2/3

J-13

Card : 3/3



USSR/Soil Science - Fertilization: Mineral Fertilizers.

J

Abs Jour : Ref Zhur Biol., No 1, 1959, 1391

Author : Chumachenko, I.N., Korniyenko, V.S.

Inst : -

Title : Effectiveness of Phosphorus Fertilizer in Relation to the Saturation of the Soil with Phosphates.

Orig Pub : Udobreniye i urozhay, 1958, No 2, 25-30

Abstract : Experiments conducted on sierozems of Middle Asia (Uzbekistan SSR) showed that effectiveness of phosphorus fertilizers applied on a background of nitrogens depended on the amount of mobile P in the soil. In a vegetative experiment phosphorus fertilizers increased the harvest of cotton wool in containers with a small amount of available P in the soil (20 mg of  $P_2O_5$  per kg of soil) by 15.5 g to a container and decreased it in variants with a high amount of mobile P in the soil (50 mg of  $P_2O_5$  per kg of soil) by 8.3 - 9.6 g to a container

Card 1/2

USSR/Soil Science - Fertilization. Mineral Fertilizers.

J

Abs Jour : Ref Zhur Biol., No 1, 1959, 1391

in comparison with harvest in containers where only N was introduced. In field experiments the application of phosphorus fertilizers (40 - 80 kg/hectare of  $P_2O_5$ ) increased the number of pods by 1.7 - 1.8 on one plant and the cotton crop by .85 - 7.26 centner/hectare on plots with a low content of available soil P (20 mg of  $P_2O_5$  per kg of soil) and decreased these indicators (number of pods by 0.5 - 1.8 to one plant and the harvest by 3.74 - 4.48 centner/hectare) on plots with a high content (60 mg of  $P_2O_5$  per kg of soil) of mobile P in the soil in comparison with the harvest from plots where only N was introduced. On plots having a low content of mobile P, phosphorus fertilizers contributed toward a more intense intake of N and P in cotton plants in almost all periods of vegetation. -- O.P. Medvedeva

Card 2/2

- 29 -

KORNIYENKO, V.S., inzhener; RIVKIN, Yu.M., inzhener; ALEXSEYEV, Ye.K.,  
inzhener; UDOD, V.Ya., redaktor; MEDVEDEV, L.Ya., tekhnicheskii  
redaktor

[Electric welder of tanks; a reference manual] Elektrosvarshchik  
rezervuarov; pamiatka posobie. Moskva, Gos. izd-vo lit-ry po stroit.  
i arkhitekt., 1955. 53 p. (MLRA 8:6)  
(Electric welding) (Tanks--Welding)

SHILOVTSEV, D.P.; KORNIYENKO, V.S., inzhener, redaktor; UDOD, V.Ya.,  
redaktor; PERSON, M.W., tekhnicheskii redaktor.

[Manufacture of welded and riveted steel structures] Izgotovlenie  
svarnykh i klepanykh stal'nykh konstruktsii. Izd. 2-e, dop. i  
perer. Moskva, Gos.izd-vo lit-ry po stroitel'stvu i arkhitekture,  
1955. 194 p. [Microfilm] (MIRA 8:5)  
(Steel—Welding) (Rivets and riveting)

KORNIYENKO, V.S.; GAZAROV, G.S.

Clamp device for lifting storage tanks under roller machine construction  
into vertical position. Rats. i izobr. predl. v stroi. no. 113:23-26 '55.  
(Tanks) (MLRA 9:4)

KORNIYENKO, Viktor Stepanovich, inzhener; RIVKIN, Yu.M., inzhener, redaktor;  
UDOD, V.Va., redaktor; TYAPKIN, B.G., redaktor; TOKER, A.M., tekhnicheskiiy redaktor.

[Erecting vertical steel storage tanks] Montash vertikal'nykh stal'nykh rezervuarev. Moskva, Gos.isd-vo lit-ry po streit. i arkhitekture, 1956. 263 p. (MLRA 9:6)

(Petroleum--Storage) (Tanks)

KORNIYENKO, V.S., inzh., laureat Leninskoy premii; STREKALOV, G.N.,  
inzh., nauchnyy red.; SKVORTSOVA, I.P., red.izd-va; RYAZANOV,  
P.Ye., tekhn.red.

[Protecting aluminum-alloy construction elements from corrosion]  
Zashchita stroitel'nykh konstruktsei iz aluminievyykh splavov ot  
korrozii. Moskva, Gos.izd-vo lit-ry po stroit., arkhitekt. i stroit.  
materialam, 1960. 74 p. (MIRA 14:1)  
(Aluminum alloys--Corrosion)

1063

S/137/62/000/003/165/191  
A160/A101

1.2300 (also 2408)  
AUTHOR: Korniyenko, V. S.

TITLE: The preparation of surfaces from aluminum alloys for resistance welding

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 3, 1962, 36, abstract 3E205  
(Montazh. i spetsializir. raboty v str-ve, 1961, no. 9, 10 - 12)

TEXT: The presence of an oxide film on the surfaces of Al and Al-alloys (thickness - 0.005 - 0.015 $\mu$ ) prevents these metals from fusion during the resistance welding. Therefore, before the welding process, the parts are subjected to mechanical or chemical cleaning to remove the oxide coating. The operation of cleaning the surface by etching is carried out in the following order: cleaning, degreasing, washing after degreasing, etching, washing after etching, drying and checking the quality of etching. To degrease them, the parts are immersed, for a period of 3 - 5 min, in an aqueous solution with the following composition (in g/l): 40 - 50 Na<sub>2</sub>CO<sub>3</sub>, 40 - 50 commercial sodiumtriphosphate, 25 - 30 water glass, water in the amount of 1 l of the solution. The degreasing is conducted

Card 1/2



KORNIYENKO, V.S., inzh., laureat Leninskoy premii.

Anodic oxidation of construction elements and details made of aluminum alloys. Mont. i spets rab. v stroi. 23 no.3:10-12 Mr '61.  
(MIRA 14:2)

1. Proyektnyy institut Promstal'konstruktsiya.  
(Aluminum alloys--Corrosion) (Films (Chemistry))

KORNIYENKO, V.S., inzh.; FETISOV, K.S., inzh.

Assembly of blast heaters from rolled blanks. Mont. i spets.  
rab. v stroi. 23 no.12:2-4 D '61. (MIRA 15:2)

1. Proyeektnyy institut Promstal'konstruktsiya i Glavstal'  
konstruktsiya Minstroya RSFSR.  
(Blast furnaces—Equipment and supplies)

KORNIYENKO, V.S., laureat Leninskoy premii

Using titanium alloys in construction. Prom. stroi. 39 no. 1:36-  
40 '61.

(MIRA 14:1)

(Titanium alloys)

KORNIYENKO, V.S., inzh., laureat Leninskoy premii; VITLIN, A.B., inzh.

Machine tools for automatic compressed air-arc treatment of  
metal. Mont. i spets. rab. v stroi. 25 no.1:26-29 Ja '63.  
(MIRA 16:6)

1. Proyeektnyy institut Promstal'konstruktsiya.  
(Metal cutting)